

ABSTRACT OF THE DISCLOSURE

A buoyancy system to buoy a riser of an offshore oil platform includes buoyancy compartments coupled around an elongated internal beam. The internal beam can withstand loads between the oil platform and the buoyancy system, while the buoyancy compartments provide buoyancy. The internal beam includes an elongated stem, a plurality of webs extending radially outwardly from the stem, and a plurality of transverse flanges attached to the outer edges of the webs.

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